

AN ANNOTATED LIST OF LEAFHOPPERS (HOMOPTERA: CICADELLIDAE) FROM WATERCRESS MARSH, COLUMBIANA COUNTY, OHIO¹

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ABSTRACT. Collections made in 1976 and 1977 at Watercress Marsh, Columbiana Co., Ohio, resulted in a total of 35 species of leafhoppers including four new state records. Most leafhopper species collected at this diverse wetlands are common inhabitants of marshes, bogs and wet sedge meadows and have eastern or transcontinental distributions.

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INTRODUCTION

Watercress Marsh, a small wetlands (approximately 50 ha) located 9 km south of Salem, Ohio, occupies a site of the Grand River Lobe of the Wisconsin Glacier near the southernmost extent of glaciation in Columbiana Co. (White 1951). Water, which originates from springs that underly the area, is diverted by a nearly imperceptible divide into two watersheds. Most of the water that originates east of State Rt. 9 flows into a small (2 ha) kettle hole pond and from there into a series of beaver ponds west of the highway. Water that originates in the western portion of the marsh flows into the beaver ponds and from there into a small creek that forms the headwaters of the Mahoning River. Water east of the divide flows southeast toward Guilford Lake and the Little Beaver Creek watershed.

Watercress Marsh exhibits many characteristics typical of northeastern Ohio fens (Andreas 1980) such as numerous small springs that originate from hilly terminal moraines and wet sedge meadows as well as open marsh and swamp forest. A diverse flora occurs here including a number of plants not commonly found in Ohio (Braun 1961, 1967; Gleason and Cronquist 1963), such as *Equisetum fluviale* L. (circumboreal and northern U.S.), *Eleocharis*

rostellata Torr. (calcareous swamps and marshes of the Atlantic Coastal Plain and locally inland), *Juncus subcaudatus* (Engelm.) Cov. & Blake (swamps of the Atlantic Coastal Plain), *Salix candida* Flugge (cold bogs of unglaciated areas of Canada and U.S.), *Alnus rugosa* (DuRoi) Spreng (wetlands of northern U.S. and Canada), *Rhamnus alnifolia* L'Her (wetlands of northern U.S. and Canada), and *Cyperus diandrus* Torr. (northern U.S. and local). Over 200 additional species of woody and herbaceous plants have been recorded from Watercress Marsh including five species of *Scirpus*, 21 of *Carex*, five of *Juncus* and seven of *Salix* (A. W. Cusick, unpublished list).

Alders and willows provide shade along many of the springs and small streams that separate small but distinct communities of *Eleocharis*, *Typha*, *Juncus*, *Carex* and *Scirpus*. Better drained sites support a swamp forest primarily of *Fagus grandifolia* Ehrh., *Quercus palustris* Muenchh., *Q. bicolor* Willd, *Ulmus americana* L., *Rhus vernix* L., and four species of *Cornus*.

The present study was part of a larger survey of the insect fauna of Watercress Marsh supported by the Ohio Biological Survey. MacLean and MacLean (1984) reported a total of 69 species of caddisflies (Trichoptera) from Watercress Marsh including species with northern and trans-boreal distributions. This paper adds four additional species to the Ohio leafhopper fauna (Osborn 1928).

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METHODS AND MATERIALS

The leafhopper fauna was sampled during the summers of 1976 and 1977 by sweeping the herbaceous and woody vegetation and by light traps operated in a wet sedge meadow east of State Rt. 9 and along the margins of the beaver ponds. Two collections were made in May, seven in June, seven in July, two in August, and five in September of 1976. One collection was made in April, one in May, three in June, and two in August of 1977. Specimens were deposited in the Youngstown State University insect collection.

RESULTS

A total of 35 species of leafhoppers was identified including four new state records: *Dorydiella floridana* Baker, *Gyponana vincula* DeLong, *Chlorotettix limosus* DeLong and Cartwright and *Cicadula cyperacea* (Osborn). New state records are indicated by an asterisk (*) in the list of species and collection data. Only three species *Draeculacephala portola* Ball, *Limotettix striolus* (Fallen) and *Macrosteles divisa* (Uhler) were represented by more than 40 individuals. Two species were represented by 20-40, six by 11-19 and 24 by 10 or fewer individuals.

Most species are common inhabitants of marshes, bogs and wet meadows (DeLong 1948) and have eastern or transcontinental distributions. Several are local or Northern, such as *Dorydiella floridana* which occurs locally in *Scleria-Eleocharis* associations and has been reported from Florida, South Dakota, Illinois and Pennsylvania (DeLong 1923, 1948). *Chlorotettix tergatus* (Fitch), *C. unicolor* (Fitch) and *Cicadula cyperacea* have northern distributions where they occur on grasses and sedges in marshes and bogs. *Chlorotettix limosus* was previously reported from Pennsylvania and Illinois.

FAMILY CICADELLIDAE

SUBFAMILY DORYCEPHALINAE

**Dorydiella floridana* Baker 7-IX-76 (1 male); 7-VIII-77 (1 male).

SUBFAMILY AGALLINAE

Agalliopsis novella (Say) 31-V-77 (1 male).
Agallia constricta Van Duzee 3-VIII-76 (1 female); 29-IX-76 (1 female); 14-VI-77 (1 female).
A. quadripunctata (Provancher) 14-VI-77 (2 females).

SUBFAMILY MACROPSINAE

Macropsis viridis (Fitch) 21-VI-77 (2 females); 7-VIII-77 (1 female).

SUBFAMILY IDIOCERINAE

Idiocerus nervatus Van Duzee 7-IX-76 (1 male, 1 female).

SUBFAMILY GYPONINAE

Gyponana octolineata (Say) 14-VI-76 (2 males).
 **G. vincula* DeLong 29-IX-76 (1 male).

SUBFAMILY NEOCOELIDIINAE

Neocoelidia tumidifrons Gillette & Baker 27-VI-76 (1 female); 9-VII-76 (1 female).

SUBFAMILY CICADELLINAE

Draeculacephala inscripta Van Duzee 14-VI-76 (1 male, 7 females).

D. mollipes (Say) 14-V-76 (1 female); 21-V-76 (1 female); 4-VI-76 (1 female).

D. noveboracensis (Fitch) 27-VI-76 (4 males, 2 females); 9-VII-76 (2 males); 20-VII-76 (1 female); 3-VIII-76 (2 females); 24-IX-76 (1 female).

D. portola Ball 4-VI-76 (1 male, 1 female); 11-VI-76 (1 male); 14-VI-76 (13 males, 7 females); 18-VI-76 (2 females); 24-VI-76 (14 males, 11 females); 27-VI-76 (1 male); 18-VIII-76 (2 males, 1 female); 3-IX-76 (2 males, 5 females); 7-IX-76 (1 female).

Graphocephala coccinea (Förster) 25-IX-76 (1 male).

Helochara communis Fitch 4-VI-76 (2 males, 1 female); 27-VI-76 (2 females); 3-VIII-76 (1 female); 18-VIII-76 (1 male, 1 female); 3-IX-76 (1 male, 2 females); 24-IX-76 (3 males, 5 females); 14-IV-77 (3 males, 6 females).

SUBFAMILY TYPHLOCYBINAE

Empoasca smaragdula (Fallen) 7-IX-76 (1 male, 2 females); 24-IX-76 (2 females); 29-IX-76 (1 female).

SUBFAMILY DELTOCEPHALINAE

**Chlorotettix limosus* DeLong & Cartwright 22-VI-76 (1 male); 30-VII-76 (1 male).

C. tergatus (Fitch) 18-VIII-76 (9 males, 6 females); 3-IX-76 (1 male); 7-IX-76 (1 female).

C. unicolor (Fitch) 27-VII-76 (1 female); 19-VII-76 (4 males, 4 females); 20-VII-76 (1 female).

**Cicadula cyperacea* (Osborn) 24-IX-76 (8 males, 3 females).

C. melanogaster (Provancher) 11-VI-76 (2 females); 14-VI-76 (2 males, 1 female); 18-VI-76 (3 males, 3 females); 9-VII-76 (1 female); 24-IX-76 (1 male).

Collodorus clitellarius (Say) 4-VI-76 (5 males, 2 females); 18-VI-76 (2 males); 3-VIII-76 (1 female).

Graminella fitchii (Van Duzee) 24-IX-76 (2 males, 1 female).

G. nigrifrons (Forbes) 14-VI-76 (2 males, 3 females); 3-VIII-76 (2 males, 3 females); 4-VIII-77 (1 male, 2 females).

Laevicephalus sylvestris (Osborn & Ball) 9-VII-76 (1 male, 1 female).

Limotettix striolus (Fallen) 11-VI-76 (4 males, 1 female); 14-VI-76 (10 males, 7 females);

18-VI-76 (6 males, 6 females); 22-VI-76 (5 males, 1 female); 9-VII-76 (5 males, 1 female); 30-VII-76 (2 females); 3-VIII-76 (1 male, 1 female).

Macrostes divisa (Uhler) 11-VI-76 (1 female); 14-VI-76 (1 male, 10 females); 3-VIII-76 (3 males, 13 females); 4-VIII-76 (9 males, 5 females).

M. slosoni (Van Duzee) 14-VI-76 (4 males, 6 females); 3-VIII-76 (1 male, 8 females); 18-VIII-76 (1 female); 16-VI-77 (2 females).

Norvellina seminuda (Say) 14-VI-76 (1 female).

Orientus isibidae (Matsumura) 3-VIII-76 (2 males, 3 females).

Paraplepsiopsis irroratus (Say) 14-VI-76 (1 female); 22-VI-76 (1 female); 24-VI-76 (1 male, 1 female).

P. torridus (Lathrop) 3-VIII-76 (1 male); 18-VIII-76 (2 males, 1 female); 3-IX-76 (1 male); 7-IX-76 (1 female).

Prescottia lobata (Van Duzee) 29-IX-76 (2 females).

Scaphoideus imistus (Say) 3-VII-76 (8 males, 1 female); 7-IX-76 (1 male); 29-IX-76 (1 male).

Scaphytopius frontalis (Van Duzee) 18-VI-76 (3 males).

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